

## **A Cross-sectional Examination of Medicinal Substance Abuse and Use of Non-Medicinal Substances Among Canadian Youth: Findings From the 2012/2013 Youth Smoking Survey**

### **STROBE Checklist**

#### **Title and abstract**

*1a. Indicate the study's design with a commonly used term in the title or the abstract*

This has been done in both subsections. The study was a cross sectional nationally representative study of youth in Gr. 7-12.

*1b. Provide in the abstract an informative and balanced summary of what was done and what was found*

This has been done with explanation of results and interpretations in page 2 of the manuscript.

#### **Introduction**

*2. Background/rationale. Explain the scientific background and rationale for the investigation being reported*

This has been done in lines 2-37.

*3. Objectives. State specific objectives, including any prespecified hypotheses*

This has been done. Aim has been explicitly stated in lines 38-41.

#### **Methods**

*4. Study design. Present key elements of study design early in the paper*

This has been done in the subsection "Design" of page 4.

*5. Setting. Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection*

All these data have been included in the subsection "Participants" on pg 4, lines 44-52.

*6. Participants. Cross sectional study—Give the eligibility criteria, and the sources and methods of selection of participants*

Lines 49-52 under "Participants" describes these.

*7. Variables. Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable*

All these data have been included in the subsection labeled “Measures” on pg 5 lines 66-88.

*8. Data source/measurements. For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group*

Full descriptions of measures are found under the subsection labeled “Measures” on pg 5 lines 66-88.

*9. Describe any efforts to address potential sources of bias*

To decrease bias and increase representativeness the sheer size of the survey and method the surveys were administered are outlined under the ‘Methods’ section in lines 44-48 and 54-60 respectively on pg 4.

*10. Study size. Explain how the study size was arrived at*

The data from this survey was arrived at by Health Canada and the Youth Smoking Survey as described under the “Design” subsection on page 4.

*11. Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why*

How quantitative variable were handled was explained in the subsection “Analysis” starting on pg 5. The choice of subgroups was explained in lines 96-101 on pg 6.

*12. Statistical methods (a-e).*

All information has been provided under the “Analysis” section starting on pg 5.

## **Results**

*13. (a) Report numbers of individuals at each stage of study—eg numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed. (b) Give reasons for non-participation at each stage(c) Consider use of a flow diagram*

All of these data have been reported in the Results section on pg 6 of the manuscript, Table 1 on pg 10 depicts the numbers that were eligible. Flow diagram not necessary because it was a one step cross sectional observational study.

*14. Descriptive data. (a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders (b) Indicate number of participants with missing data for each variable of interest (c) Cohort study—Summarise follow-up time (eg average and total amount)*

All these data have been included in results, in particular in the subsection “Sample Characteristics & Prevalence Estimates”. Follow-up time was not described because of the cross sectional nature of the study.

*15. Outcome data. Cross sectional study—Report numbers of outcome events or summary measures*

These data are described under the “Results” subsection on pg 6 of the manuscript.

*16. Main results. (a) Report the numbers of individuals at each stage of the study—eg numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed (b) Give reasons for non-participation at each stage (c) Consider use of a flow diagram*

All these data have been included in results and tables. Nobody refused the consent. Flow diagram was not necessary because it was an one step cross sectional observational study. However, each main outcome was inserted in a subheading to assist for interpretation.

*17. Other analyses. Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses*

All results have been presented under the “Results” subheading as well as the tables at the end of the manuscript.

## **Discussion**

*18. Key results. Summarise key results with reference to study objectives*

Key results have been summarised (see pg 7 lines 136-140). The objective of the study is elaborated on in the following paragraph starting on line 141 on pg. 7.

*19. Limitations. Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias*

Limitations have been discussed at pg. 8 starting in line 166-175.

*20. Interpretation. Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence*

A cautious interpretation is included starting on line 136 on pg. 7 under the subheading “Interpretation”.

*21. Generalisability. Discuss the generalisability (external validity) of the study results*

Generalisability has been discussed in lines 168-172 of pg 8.

## **Other information**

*22. Funding. Give the source of funding and the role of the funders for the present study and, if applicable, for the original study on which the present article is based*

Funding has been described in a specific point at pg.9.